

Study

Future-Proof Your Business

Adapting to Technology
and Demographic Trends

October 2017



Table of contents

Executive summary	1
The changing face of Canada's business landscape	3
1. Taking advantage of shifting demographics	4
1.1 The aging workforce	6
1.2 The rise of the millennial generation	10
1.3 A more culturally diverse population	13
2. The increasing power of digital technologies	16
2.1 The growth of virtual marketplaces	18
2.2 The automation of business activities	22
2.3 The rise of the data economy	26
Conclusion	31
Survey methodology	32

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Acknowledgements

Thanks to Isabelle Simard, Marco Santos Pires, Geneviève Michaud and Tom Corner for their comments on and input into this study, and to Don Macdonald for his invaluable contribution.

This research was prepared by the Economic Analysis team from Marketing and Public Affairs at the Business Development Bank of Canada (BDC). It is based on public and proprietary data that were analyzed and interpreted by BDC. Any error or omission is BDC's sole responsibility. Reliance on and use of the information herein is the reader's responsibility.

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Executive summary

Six

emerging trends that will fundamentally reshape Canada's future business landscape

With shifting demographics and the rise of new digital technologies, Canadian entrepreneurs are facing a new reality—one marked by changing dynamics in the labour force and new ways of doing business.

These major forces are characterized by six emerging trends that will fundamentally reshape Canada's future business landscape:

- ①. the aging workforce;
- ②. the rise of the millennial generation;
- ③. a more culturally diverse population;
- ④. the growth of virtual marketplaces;
- ⑤. the automation of business activities; and
- ⑥. the rise of the data economy.

Canadian businesses are already feeling the effects of these changes: One quarter of respondents to a new Business Development Bank of Canada (BDC) survey of 1,400 business leaders said demographic changes had hurt their ability to recruit skilled employees, while 38% said they had changed the way they do business, following the integration of new technologies.¹

Our survey also indicates that Canadian entrepreneurs are taking action to tap into a new pool of labour. In the face of demographic changes, most respondents have been proactive: 72% have deployed strategies to attract and retain talent, such as offering more flexible work arrangements (30%). However, only a few (6%) are relying on immigrant workers when seeking new employees, even though immigrants will be the main source of population growth in coming years. Survey respondents who have already implemented strategies to adapt to the shifting demographic environment are expecting higher sales growth in the future.

¹ BDC ViewPoints Panel and the Maru/Matchbox panel.

An exciting finding from the new BDC survey is that the rate of technology adoption among respondents could double over the next three years. The survey also confirms that entrepreneurs who are already embracing digital technologies are reaping the benefits. Among these benefits, 49% of respondents said they saw an improved customer experience, 34% said they experienced higher revenue growth, 36% said they enjoyed enhanced efficiency through lower costs and 45% said they saw better productivity.

As we take a detailed look at each of the trends in the following pages, we offer the following advice on how to future-proof your business to help turn these challenges into opportunities for a stronger, more competitive business:

-
- **improve your value proposition as an employer;**
 - **be open to diversity and attract more immigrant workers;**
 - **reach out to educational institutions and offer more training to your workers;**
 - **digitize your marketing and sales strategies;**
 - **automate repetitive and low value-added tasks; and**
 - **use data to help improve your business processes and create new products.**
-

The changing face of Canada's business landscape

Canada's business environment is changing in profound and unprecedented ways across all industries. Entrepreneurs are grappling with two forces in particular: shifting workforce dynamics and the emergence of digital technologies. This study looks at these forces in detail, and proposes ways that you can take advantage of them to create a stronger, more competitive business.

First, we discuss the demographic shifts reshaping the Canadian workplace. As the baby boom generation continues to head to retirement, the labour pool is growing more slowly and even shrinking in some regions. Shortages of skilled labour—already a growing concern for small and medium-sized businesses—will become more acute. In addition, the composition of Canada's workforce is changing. It's becoming more diverse, due to the rising importance of immigrant workers, and better educated, as the millennials enter the labour force in large numbers.

The second force—the increasing power of digital technologies—is having an equally profound impact on Canadian businesses. A vast array of low value-added activities is being automated, while the Internet, mobile communications and the ability to crunch huge amounts of data are making businesses more efficient, more innovative and more responsive to customers.

In this new context, Canadian entrepreneurs need to take more action to respond to these transformations—to future-proof their businesses. Indeed, a new BDC survey conducted among 1,400 business leaders indicates that one quarter of respondents are already feeling the impact of demographic shifts on their ability to recruit qualified personnel. At the same time, 38% of respondents have changed how they do business following the adoption of digital technologies in the past three years. While more than half of respondents said they believe both talent and digital technologies are of critical importance to their business success, our survey results suggest many businesses are not investing enough to keep up with the pace of change.

What impact will these forces have on your company? This report takes an in-depth look at that question. It offers advice on how you can future-proof your business to manage these changes and reap the benefits. Along the way, you will learn about leading Canadian entrepreneurs who are successfully meeting these challenges, and have strong, growing and profitable businesses to show for their efforts.

1

Taking advantage of shifting demographics

1/4

of respondents are already feeling the impact of demographic shifts on their ability to recruit qualified personnel

Demographic shifts are reshaping the Canadian workplace. The pool of talent will grow more slowly and even shrink in some regions in the coming years. This means that finding skilled workers will become increasingly difficult. In addition, the composition of the workforce is changing rapidly. It will be older on average, due to the aging population, and will be more diverse, due to the rising importance of immigrant workers. As well, highly educated millennials are entering the labour force in increasing numbers. While many entrepreneurs have already deployed strategies to adapt to these changes, they can do more to take advantage of opportunities presented by these trends.

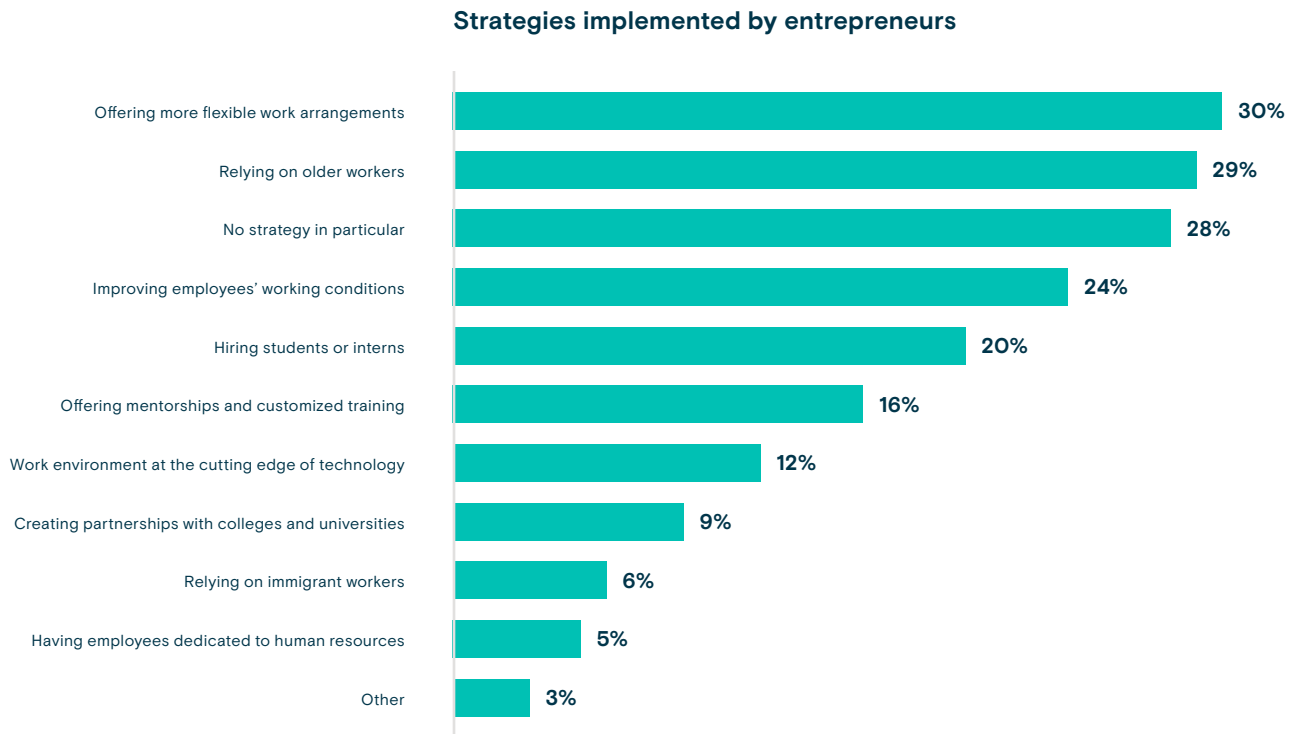
Key business assets

Employees are critical assets for most businesses. Without skilled and motivated personnel, firms can't operate efficiently and grow. It comes as no surprise, then, that more than half (55%) of our survey's respondents strongly agreed that recruiting skilled staff is crucial for their success. The proportion is even higher for businesses with 20 or more employees. Here, 82% of respondents said that employees are key.

However, the changing nature of Canada's workforce is making it more difficult for entrepreneurs to find and keep the right employees. One quarter of respondents said that demographic shifts have had a significant impact on their ability to recruit staff over the last three years. And, our survey suggests that this is a growing challenge for entrepreneurs. When asked whether they expect it to become an issue in the next three years, the proportion of respondents who agreed rose to one third.

To overcome this challenge, most business owners have taken steps to secure the talent they need. Only 28% indicated they have made no particular efforts, probably because most are not looking to expand their workforce. Offering flexible work arrangements and relying on older workers are the most popular strategies (Figure 1).

Figure 1 – Strategies to facilitate the hiring of qualified workers



Source: BDC survey, *Demographic change and the shift to new technologies in small and mid-sized Canadian businesses*, July 2017. Base: all respondents who provided an answer (n=1,381).

Our survey indicates that businesses that take steps to adapt their hiring practices to emerging workforce trends will enjoy higher growth. One quarter of respondents who have taken action to facilitate the hiring of skilled workers said they expect annual sales growth of 10% or more over the next three years. By comparison, among entrepreneurs who have done nothing, only 14% expect to enjoy high sales growth over the same period.

The following sections present key talent trends in Canada, with advice on how your business can adapt to them, and examples of leading businesses that have successfully done so.

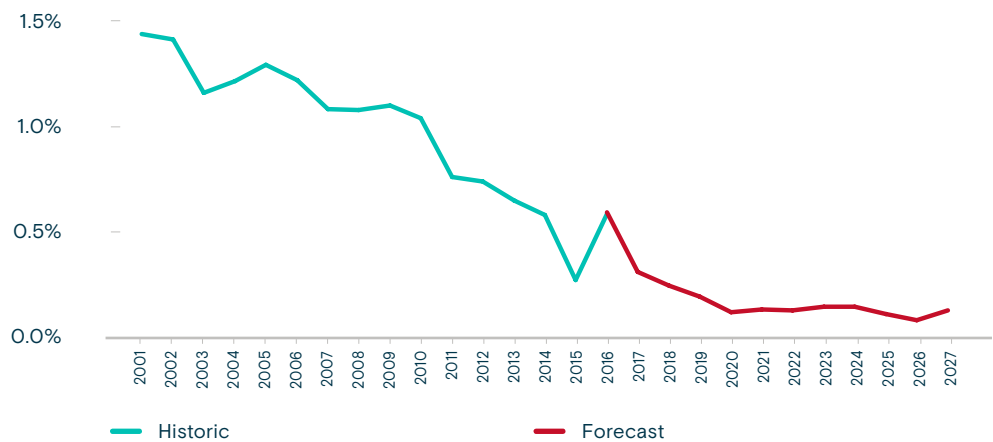
The retirement of baby boomers, combined with the overall aging of the population, will put a drag on growth

1.1 The aging workforce

The massive entry of baby boomers into the labour market during the 1960s and 1970s triggered strong economic growth. Over the coming two decades, however, the opposite trend will occur. The retirement of baby boomers, combined with the overall aging of the population, will put a drag on growth.² This is because the working-age population will grow at a slower pace than previously, as fewer people enter the workforce to replace those who are leaving (Figure 2).

Figure 2 – Population growth is slowing

Growth of Canada's working-age population (15 to 64 years old)

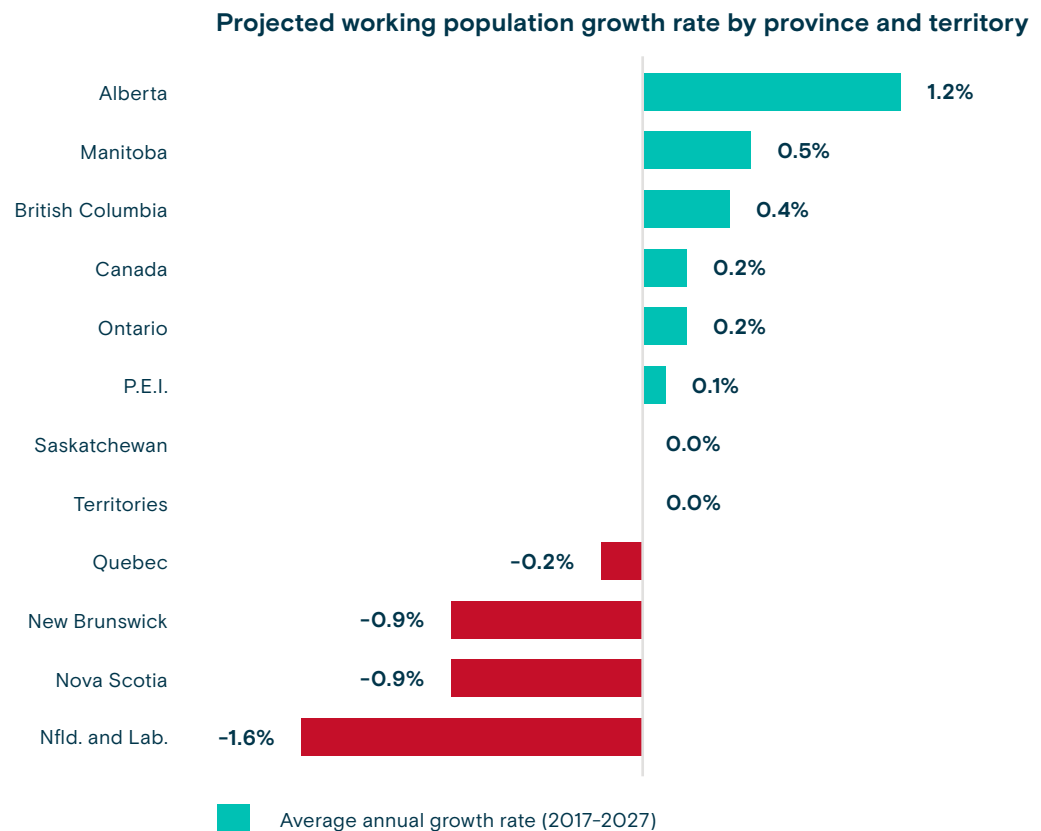


Source: Statistics Canada. Projections are based on the medium-growth scenario.

² Of course, other factors, such as technology, may accelerate growth in the future.

However, not all regions will be affected in the same way. An aging population will be felt more heavily in Newfoundland and Labrador, Nova Scotia, New Brunswick and Quebec, where projected population growth is negative. Meanwhile, the Prairies and British Columbia will see stronger population growth (Figure 3). If current trends continue, the Prairies will be more populous than Quebec in 50 years. And, the demographic importance of the Atlantic Provinces could shrink, with the region accounting for less than 5% of the total Canadian population a half-century from now.³

Figure 3 – High regional disparities in projected working-age population growth



Source: Statistics Canada. Projections are based on the medium-growth scenario.

³ Statistics Canada, *Recent Changes in Demographic Trends in Canada*, 2015.

What this means for your business

In the context of an aging population, current difficulties in attracting and retaining skilled employees will no doubt become more acute, particularly in Eastern Canada. As the talent pool shrinks, companies will need to position themselves as “employers of choice” in their market.

What your business can do

We recommend the following strategies to help you find and keep skilled personnel.

- **Be flexible.** By creating an accommodating workplace, you can entice aging employees to put off retirement. Older workers may not want to work full time. Offering flexible hours, part-time jobs and temporary work are ways to keep them on board. Millennials also value flexibility in their work arrangements.
- **Improve benefits and compensation.** Consider improving the benefits you offer, such as a pension plan, health insurance or even profit-sharing. Compare your compensation rates with those of the competition to see whether you need to make changes. Pay and benefits aren’t usually the reason people start looking for another job, but they can help tip the scales against a decision to leave.
- **Boost your productivity.** An aging workforce means Canadian companies will have to boost their productivity to continue growing. Improving productivity isn’t about working more hours or putting in more effort. It’s about finding more efficient ways of producing goods or services with the same amount of effort. Raising productivity in your company requires focus and investment in equipment, technology and other productive assets. You also have to foster a culture of innovation and continuous improvement by sharpening your operational efficiency.
- **Encourage mentorship.** Pair people who are close to retirement with new workers to transfer skills and encourage younger workers to stay with your company.



Riverside Lobster International

Lobster processor takes action to battle chronic labour shortage

David Deveau's lobster processing business is in the right place at the right time. International demand for Canadian lobster is soaring and so are prices.

There's just one problem for Deveau, President of Riverside Lobster International in Nova Scotia. His company suffers from a chronic labour shortage, lacking 25 to 30 employees every day at its two processing plants.

Deveau will need to find even more workers—up to 100—as he expands his operation. But the labour problem is getting worse, with the retirement of more and more baby boomers from his 270-strong workforce.

"We have a major problem," he says. "Labour is the crunch. Without labour, there is nothing."

Riverside Lobster processes 5.5 million kg of fresh and frozen lobster annually at its plants in Meteghan River on the southwestern tip of Nova Scotia. Almost all the lobster is exported to booming markets in the U.S., Europe and Asia.

The company is doing everything it can to find and keep workers. It pays considerably more than minimum wage and offers employees a pension plan and health benefits.

Considers opening a daycare to attract workers

Additionally, it pays for six buses to pick up workers from surrounding areas and take them back home in the evening. It's even considering subsidizing an on-site daycare to help attract younger workers.

But Deveau says all of these efforts aren't enough to counter the impact of an aging population and out-migration in rural Nova Scotia. He says the only long-term solution is immigration. Riverside uses the federal government's Temporary Foreign Worker Program to bring in a few dozen employees each year from Latin America.

It's also participating in the Atlantic Immigration Pilot Program. This program allows companies to hire skilled workers or new international graduates who can then apply to become permanent residents.

It's part of the answer to a challenging situation that more and more Canadian companies will be facing, Deveau says.

"We have to take action to handle this problem because it's not going to go away."

Read the full story to learn more about how Riverside Lobster International adapted its business to this future trend at www.bdc.ca/riversidelobster.

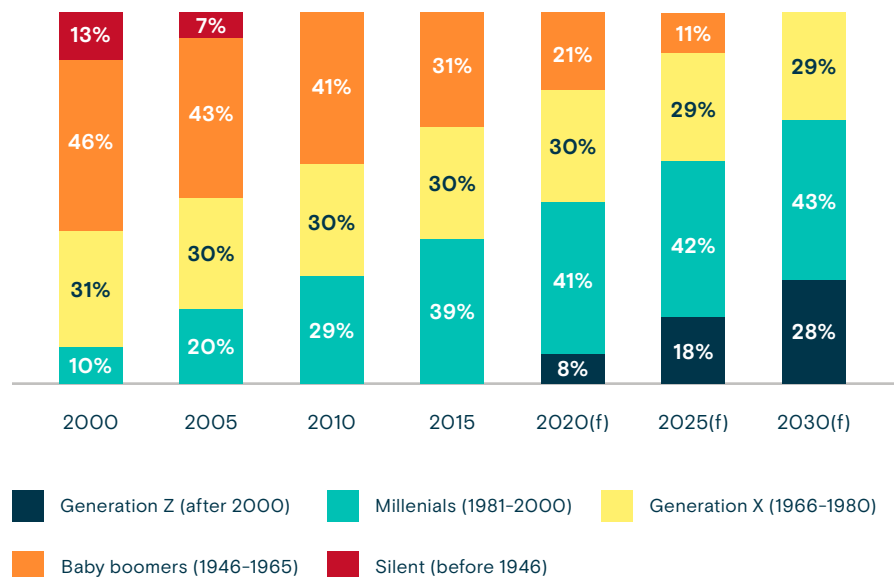
Millennials and members of Generation Z will account for half of the workforce by 2020

1.2 The rise of the millennial generation

As baby boomers disappear from the labour market over the next two decades, the millennial generation (born between 1981 and 2000) will take an ever-larger place in the workforce. This generation now accounts for 40% of the working-age population. The coming years will also see the first members of Generation Z (born after 2000) enter the labour force. Millennials and members of Generation Z will account for half of the workforce by 2020, and close to three quarters by 2030 (Figure 4).

Figure 4 – Millennials are becoming predominant in the workplace

Development of Canada's working-age population (15 to 64 years old)



f = forecast

Source: Statistics Canada. Projections are based on the medium-growth scenario.

Over the coming decades, businesses will have to manage a workforce comprised of multiple generations with different skills and expectations. Indeed, millennials and members of Generation Z tend to be better educated and more tech-savvy than previous generations.⁴ But, this is not the only difference. Millennials also have different work expectations than their predecessors. They value a good work-life balance, flexible working arrangements (i.e., remote work, flexible hours), professional development and a sense of purpose to their work, among other things.⁵

⁴ In 2016, 36% of Canadians between the ages of 25 and 44 held a university degree, compared with 23% of those who were 45 years old and over.

⁵ Deloitte, *The 2016 Deloitte Millennial Survey*, 2016

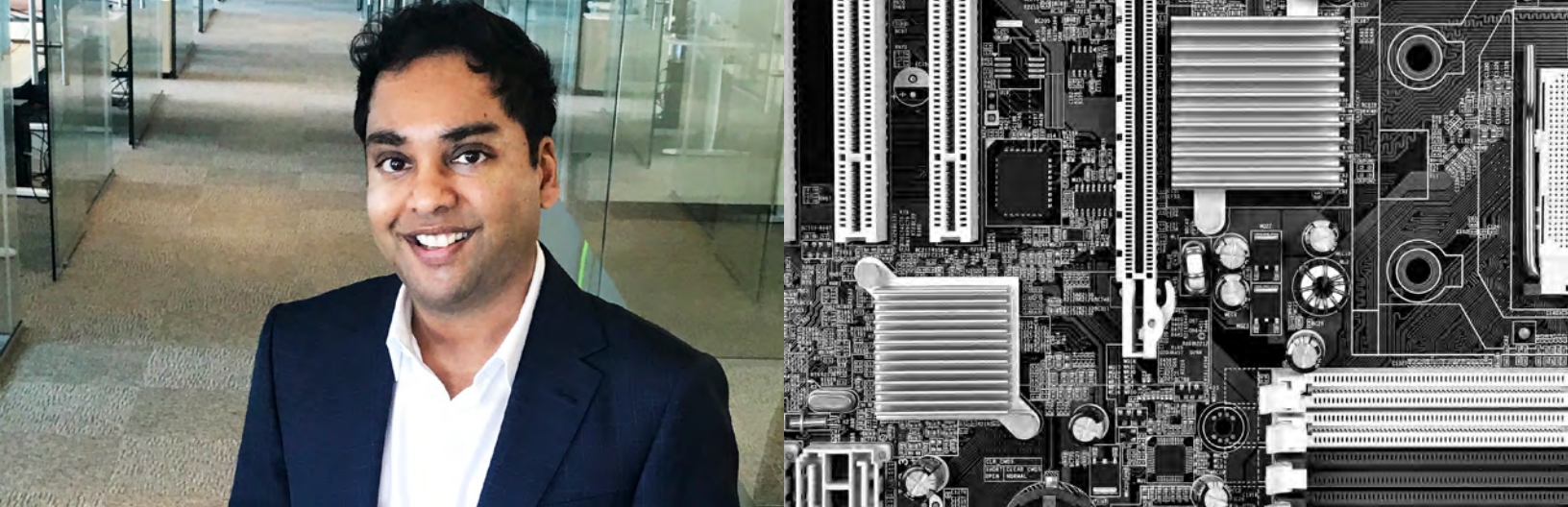
What it means for your business

With millennials taking a predominant role in the workplace, Canadian businesses that adapt their management practices to take advantage of this generation's strengths will reap the benefits.

What your business can do

We recommend the following strategies to adapt your workplace to younger generations.

- **Position your business on social media.** Use business-focused social media, such as LinkedIn, to identify and connect with potential job candidates. You can also use social media to highlight your business's strengths. For instance, you can encourage staff to blog about their work and why your company is a great place to work. Make sure to carefully manage the image you project online to help attract the best employees.
- **Partner with schools.** To attract younger workers, consider collaborating with colleges and universities. You could create an internship, make industry-specific presentations on campus, participate in job fairs or invite students to tour your facilities. The objective is to identify talented students before they graduate.
- **Invest in training.** Training has always been a priority for entrepreneurs who want to sharpen their workers' skills. Training is also a great strategy for retaining workers and attracting new ones. It keeps employees engaged and is the key to improving customer service and business performance.
- **Recognize and appreciate.** Recognizing the contribution of employees—especially publicly—is one of the best tools you can use to motivate and retain employees, and it doesn't cost a dime.
- **Develop leadership in-house.** Recruiting leaders from outside your business can be expensive, time-consuming and risky. That's why developing homegrown talent gives your business a long-term competitive advantage. Make leadership development part of your business strategy. Identify emerging leaders who can step in and fill critical roles.



Solido Design Automation

Tech company finds fertile recruiting ground on the Prairies

Once a month, you can find the CEO of Saskatchewan's fastest growing technology company hosting a networking event called Pi O'clock.

The event begins at 3:14 on Friday afternoons and brings together Saskatoon's small but ambitious tech community for beer, snacks and shoptalk in the sleek new offices of Solido Design Automation.

Solido CEO Amit Gupta says the event is his company's way of supporting the tech community, but it's also part of his strategy for finding top employees for his business.

Solido makes sophisticated software used by companies around the world to design the chips that go into just about every kind of device, from smartphones to televisions to cars. The company's revenue growth rate has ranged from 50% to 70% in each of the last six years, and Solido doubled its workforce to 105 from 50 at the beginning of 2017.

Gupta notes that Solido's offices are close to the University of Saskatchewan, where the company hires graduates from the engineering, computer science and mathematics departments. Students are invited to attend the Pi O'clock mixers, and Solido also participates in job fairs and takes advantage of speaking opportunities on campus.

Recruits in Canada and abroad

But, the recruitment efforts go much further. Gupta says Solido also seeks experienced Saskatoon tech workers from other local companies, as well as graduates from universities across Canada and foreign talent, which it reaches through industry websites.

Since most new hires come without experience in Solido's field, they spend four weeks in an in-house "incubator," getting up to speed on the company's technology and projects. From there, they are paired with a mentor who keeps them on track in their new jobs.

Gupta says the company's new offices are another key selling point in attracting and retaining talent. Solido invested more than \$1 million in late 2016 to create a state-of-the-art software facility.

The company's efforts are paying off. It hasn't had an employee leave in years, and it's well on its way to achieving its staff expansion goal.

"It's all about people," Gupta says. "The engine of our growth is people."

Read the full story to learn more about how Solido Design Automation adapted its business to this future trend at www.bdc.ca/solido.

By 2032, immigrants will account for up to 80% of Canada's population growth

1.3 A more culturally diverse population

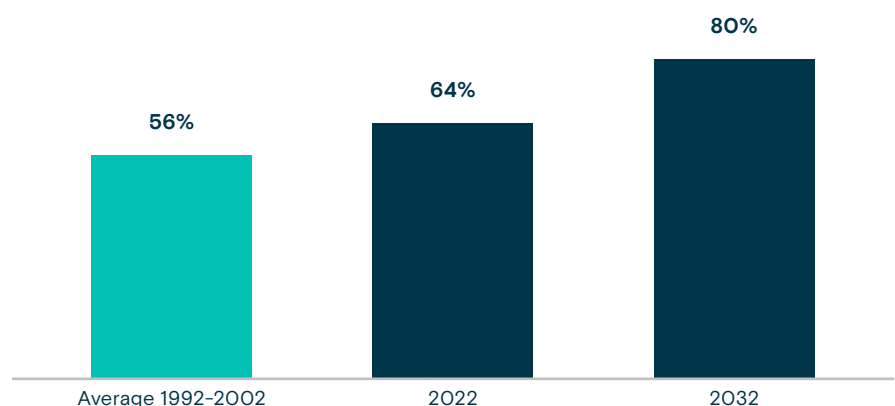
Since the mid-1990s, immigration has contributed more to the growth of the Canadian population than births. By 2032, immigrants will account for up to 80% of Canada's population growth, and approximately one in four Canadians will have been born in another country (Figure 5). Significant regional disparities are expected to persist, however, with one third (34%) of the population of Ontario projected to be foreign-born by 2032, compared with only 3% in Newfoundland and Labrador.⁶

Immigration presents notable opportunities for businesses. Several studies emphasize that companies with an ethnically diverse labour force perform better financially than those with more homogeneous workforces.⁷ Research also suggests that diverse teams are more effective. The quality of their output is better and their engagement is deeper. A diverse workforce is also better positioned to understand and anticipate the needs of an increasingly diverse marketplace. As well, immigration has a positive impact on innovation and Canada's trade relations.⁸

Unfortunately, many entrepreneurs seem to overlook the contribution new Canadians could make to their business. The unemployment rate for immigrants remains much higher than that for people born in Canada.⁹ Our survey results underline this, indicating that immigrants aren't on the radar screen of most entrepreneurs when it comes to hiring. Only 6% of respondents reported that they are relying on immigrant workers to fill their needs for skilled employees. Considering that the lion's share of population growth will come from immigration, many business owners are missing out on an important pool of talent.

Figure 5 – Immigration will sustain Canada's population growth

Percentage of population growth from immigration



■ Forecast

Source: Statistics Canada. Projections are based on the medium-growth scenario.

⁶ According to Statistics Canada, if the trend continues.

⁷ McKinsey & Company, *Diversity Matters*, February 2015.

⁸ The Conference Board of Canada, *Immigrants as Innovators: Boosting Canada's Global Competitiveness*, October 2010.

⁹ In 2016, the unemployment rate for immigrants who had been in the country for five years or less was 11.4%, whereas it was 6.8% for the Canadian-born segment of the population.

What it means for your business

Clearly, a winning recruitment strategy in a tight labour market will include embracing diversity in your company and reaching out to immigrant workers. Openness to diversity requires buy-in from top management and a willingness to root out unconscious biases towards people from different backgrounds in the workplace.

What your business can do

We recommend the following strategies to attract immigrant workers to your business and keep them.

- **Reach out to specific communities.** You can get started by targeting specific immigrant communities through business associations and networks. The Internet gives you quick and easy access to the groups you are targeting. Ensure your job postings are visible to them. As well, seek some help to better understand and appreciate the competencies of individuals who have worked and studied abroad.
- **Rethink your recruitment process.** One way to eliminate unconscious bias is to practise “blind recruitment.” Removing all the names of applicants from the resumes you receive will help ensure company opinion of potential new hires is based on work experience, competencies and education.
- **Take advantage of government programs.** These include such initiatives as the Temporary Foreign Worker Program and the Global Talent Stream.
- **Adjust your training.** Entrepreneurs who hire from culturally diverse groups need to ensure their training is customized to meet those groups’ needs. For instance, new Canadians who are less fluent in English or French than your other employees may need specially adapted training materials.
- **Take advantage of the strengths of immigrant workers.** A diverse workforce can improve your company’s capacity to expand globally. Employees from a part of the world you are targeting for expansion or already operating in can help you understand the market better and penetrate it more effectively.



Intelligarde International

Entrepreneur attracts and keeps immigrants by giving them a piece of the company

Ross McLeod freely admits the jobs at his security guard firm are perceived as low-status, not only by society but also by the guards themselves.

McLeod, CEO of Intelligarde International in Toronto, is working to change those perceptions among his predominantly immigrant workforce. As part of those efforts, he gives shares in his company to employees with more than three years of seniority.

He also provides a pension plan, health benefits and advancement opportunities to his 500-strong workforce, which he estimates is composed of about 70% immigrants.

Intelligarde, which also operates in Hamilton, Ottawa and Winnipeg, is the first security firm to attain B Corporation certification. To be so certified, a company must meet rigorous standards of economic, social and environmental performance.

Chief culture officer does immigrant outreach

The company has a chief culture officer, Marjaan Hadi, who is responsible for human resources at the company, including training and reaching out to immigrant communities from which the firm draws employees.

Training and the opportunity to move up in the company are important factors in retaining immigrant workers, says Hadi, who was born in Afghanistan and speaks five languages. She adds that the company has a clear policy on religious accommodation.

Providing good employment to security guards is an example of combining altruism with self-interest, McLeod says. It serves his interests by helping him recruit the best guards and persuade them to stick with the company in an industry with chronically high turnover rates.

McLeod says more entrepreneurs need to embrace hiring immigrants, because that's where the workers are in a tight labour market.

“You have to lean into it and embrace that reality,” says McLeod. “You’ve got to work with it and make the very best you can out of it.”

Read the full story to learn more about how Intelligarde International adapted its business to this future trend at www.bdc.ca/intelligarde.

2

The increasing power of digital technologies

The rate of technology adoption could nearly double by 2020

Digital technologies are transforming the economy by creating new online markets, automating an array of low-value activities and making it possible to leverage the power of data. Our survey results show that the digital transformation of small and mid-sized businesses in Canada is well under way, especially among larger businesses. However, smaller businesses have some catching up to do.

A trend felt across the country

The growth of e-commerce, process automation and data analytics will affect every business in Canada. In our survey of business leaders, 38% said the digital economy has already changed the way they operate, and more than a quarter (29%) said it has transformed their business model.

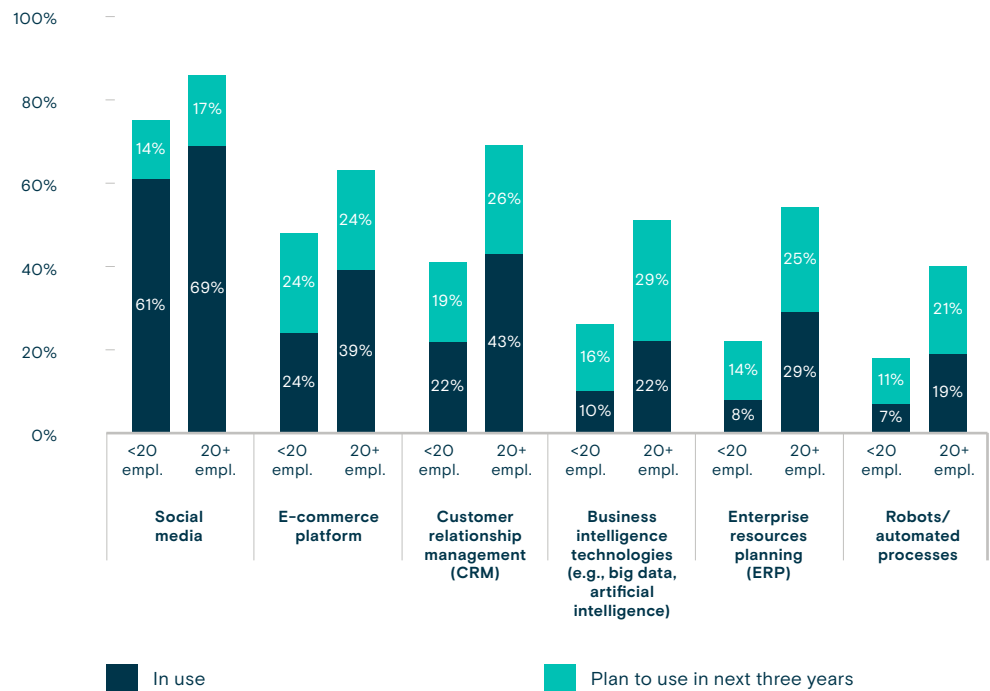
These changes are paying off. Our survey indicates that businesses that have embraced digital technologies have improved their customer experience (49%), boosted revenue growth (34%), and enhanced their efficiency through lower costs (36%) and better productivity (45%).

And this is just the beginning. Half of respondents said they strongly believe digital technologies will be the key to their business success in coming years. In fact, the rate of technology adoption could nearly double by 2020 for both small and larger businesses (Figure 6). This is good news, since our survey suggests that, with the exception of the use of social media, digital technology adoption remains quite low among small businesses. For example, less than one quarter of those with fewer than 20 employees currently use e-commerce platforms in their business, although the proportion is expected to rise to about 48% by 2020.

In this section, we present three key technology trends and show how they will reshape businesses and the economy. For each trend, we offer advice on how to future-proof your business by adopting more technology. We also tell the stories of leading companies that are successfully taking advantage of these tools.

Figure 6 – Adoption rate should double by 2020 for many digital technologies

Percentage using or planning to use the technology in their business



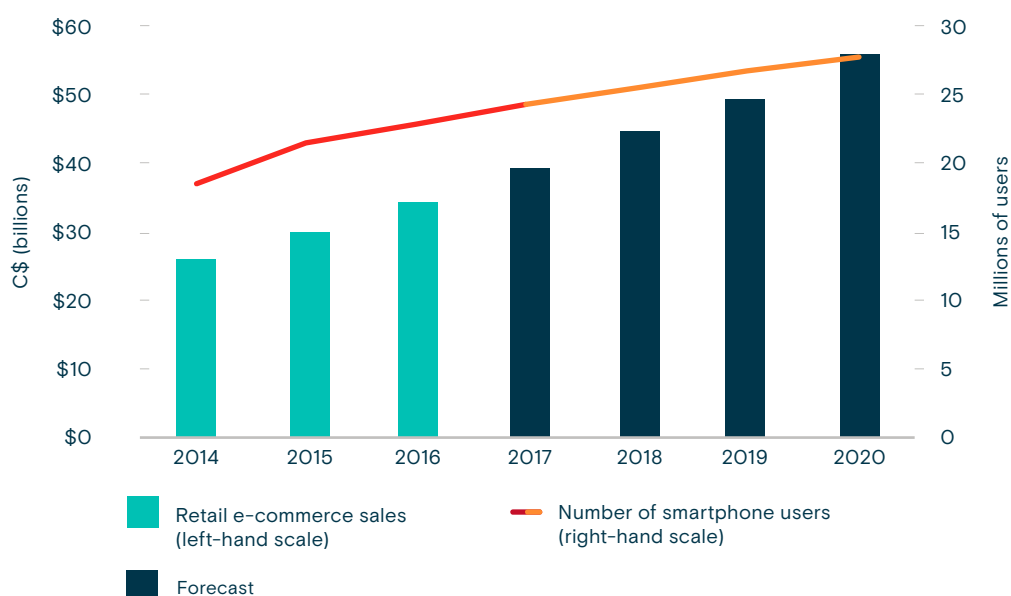
Source: BDC survey, *Demographic change and the shift to new technologies in small and mid-sized Canadian businesses*, July 17. Base: all respondents (n=1,413).

2.1 The growth of virtual marketplaces

Consumers are increasingly living in a hyper-connected, high-speed world. The rapid adoption of the Internet and mobile devices in Canada and around the world is completely changing the way consumers search for products, get recommendations, interact with companies and make payments. As a result, e-commerce is growing rapidly in Canada (Figure 7).

Figure 7 – E-commerce is booming in Canada

Retail e-commerce sales and smartphone users in Canada



Note: E-commerce sales include sales of products or services ordered using the Internet via any device, regardless of the method of payment or fulfillment. Excludes travel and event tickets.

Sources: www.eMarketer.com, www.statista.com and BDC calculations.

57%

of the business-to-business buying process is done online before a salesperson is contacted

Digital technologies are shifting the balance of power from sellers to buyers. Consumers are making purchases armed with more information than ever before. For example, a recent BDC study found that 90% of consumers systematically visit a company's website before contacting it for information.¹⁰ The same is true of business clients. More than half (57%) of the business-to-business buying process is done online before a salesperson is contacted.

Another important way digital technologies are empowering consumers is through online reviews. According to a survey by Google/Ipsos, a majority of U.S. consumers now use their smartphones in stores to get information on the purchase they're about to make.¹¹ What's more, one quarter of respondents have changed their minds about buying an item after reading bad reviews on their smartphones.¹² It's clear that online reviews can strengthen—or destroy—your company's reputation, and the proliferation of smartphones and tablets is amplifying this effect.

Another key characteristic of online markets is that they are borderless. Consumers can use e-commerce platforms such as Amazon, eBay and Alibaba to buy products from anywhere in the world. At the same time, small businesses can also use these platforms—or build their own e-commerce capability—to sell their products and services worldwide, becoming, in effect, micro-multinationals.

Digital platforms are making it ever simpler and more convenient for customers to get what they want, when they want it and how they want it, regardless of where they are located. As a result, they have more options and can switch easily between brands if their expectations are not met.¹³

¹⁰ BDC, *Five Game-Changing Consumer Trends*, October 2016.

¹¹ This statistic was reported in BDC, *ibid.*

¹² *Ibid.*

¹³ KPMG, *Seeking Customer Centricity: The Omni-Business Model*, 2016.

What it means for your business

Canadian businesses will face stiffer competition from both local and foreign companies. An online presence has become a necessity even for businesses that don't sell over the Internet. The most competitive businesses will be those that can leverage their digital platform to exceed customer expectations and expand beyond Canada's borders.

What your business can do

We recommend the following strategies to help your business take full advantage of the virtual marketplace.

- **Build your online presence.** If you haven't already done so, create a digital ecosystem for your business, including a mobile-friendly website with e-commerce capability and social media pages. Your website should be well designed and have a clear, sharp look. After all, it's your company's 24-hour virtual storefront.
- **Learn how to attract customers online.** A beautiful website is useless if it doesn't attract visitors. Once your digital ecosystem is set up, launch a few simple campaigns, using tools such as Facebook ads or Google AdWords, to bring in traffic at a price you can afford.
- **Get busy on social media.** Start by monitoring what's being said about your company. Then, create your own presence on the main social media sites to raise your profile, manage your image and engage with customers. Remember: Social media is about the soft sell. Aim to interact with your audience by being informative, helpful and supportive. Aggressive marketing is not recommended.
- **Measure your success.** We improve what we measure. A key advantage of online marketing is the data it provides. It allows you to constantly assess how you are doing. You can use this information to tweak your digital properties and marketing campaigns. Listen to what visitors are saying on social media and analyze their behaviour on your website to help you convert more of them into paying customers.
- **Work for continuous improvement.** Your digital strategy should involve an ongoing cycle of improvement. Take action, measure the results and make changes to improve. Repeat. This agile framework ensures changes, including additions of more advanced technology, are based on true customer needs.



From Rachel

Personalization gives e-commerce business a leg up on the competition

The e-commerce business From Rachel grew out of the frustrations of three young women. They were fed up with stockings that had boring designs and poor quality.

The women worked together as advisors at a Montreal entrepreneurship centre. So, not only could they identify a problem but they also knew how to solve it—by starting a business.

They launched From Rachel, an online subscription service offering great-looking, high-quality stockings, leggings and socks. Customers sign up to receive two pairs of stockings at regular intervals of one, two or three months in an attractive box.

“It’s not easy to find stockings that are beautiful and of good quality,” says Carolyne Parent, who founded the Montreal company with Alyeska Guillaud and Mélanie Heyberger in 2014. “We saw an opportunity to create a brand online that would connect with women of the millennial generation.”

Customer focus was key to growth

The company suffered slow sales growth until the partners hit upon the idea of personalizing the stockings they were sending out. They designed an online questionnaire to gather information on each customer’s preferences in stockings, including colour, design and where they wear them—at the office, on the town, at school or elsewhere.

The questionnaire is accompanied by images to guide choices and allows the company to create a “style profile” for each customer. From Rachel uses this profile to send a selection of stockings tailored to each customer’s needs and desires.

Sales have taken off. The company has quadrupled sales each year since its launch and was featured on the French version of *Dragons’ Den*.

The stockings are manufactured in Italy but designed by the team in Montreal. Here again, there’s participation from customers. The company regularly surveys its 30,000-strong Facebook community about what designs they want to see in upcoming collections.

While the company currently sells only in Canada, Parent says the partners have plans to expand to the U.S.

“Our goal is to dominate this niche.”

Read the full story to learn more about how From Rachel future-proofed its business at www.bdc.ca/fromrachel.

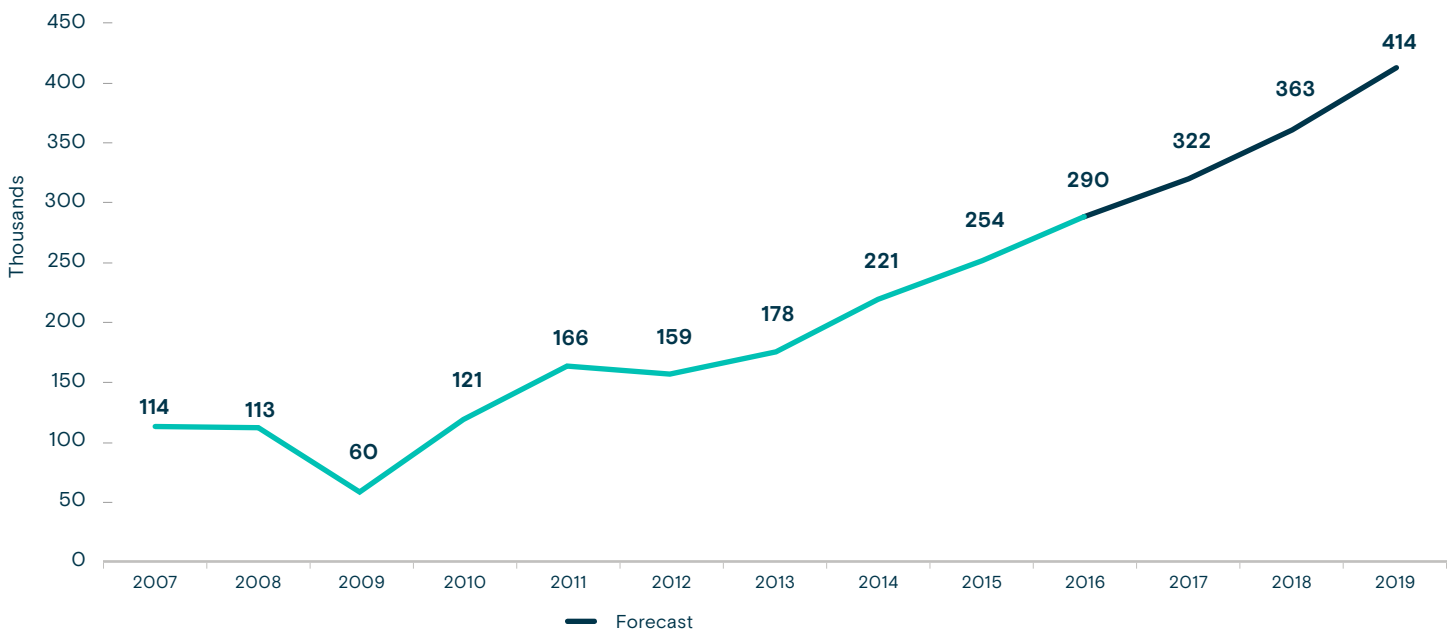
2.2 The automation of business activities

One of the most important technology trends that will shape the economy in the future is the use of robots and artificial intelligence (AI) to perform a vast range of activities with little or no human involvement.

The global demand for industrial robots has boomed since the end of the 2008–09 recession (Figure 8), thanks to lower prices, technological advances¹⁴ and the fading appeal of offshore production in locations such as China.¹⁵ While the number of robots is surging around the world, adoption of robotics by Canadian manufacturers lags behind that of other advanced economies, such as Japan, Germany and the U.S. (Figure 9).

Figure 8 – Global demand for robots has boomed since 2009

Estimated worldwide annual supply of industrial robots



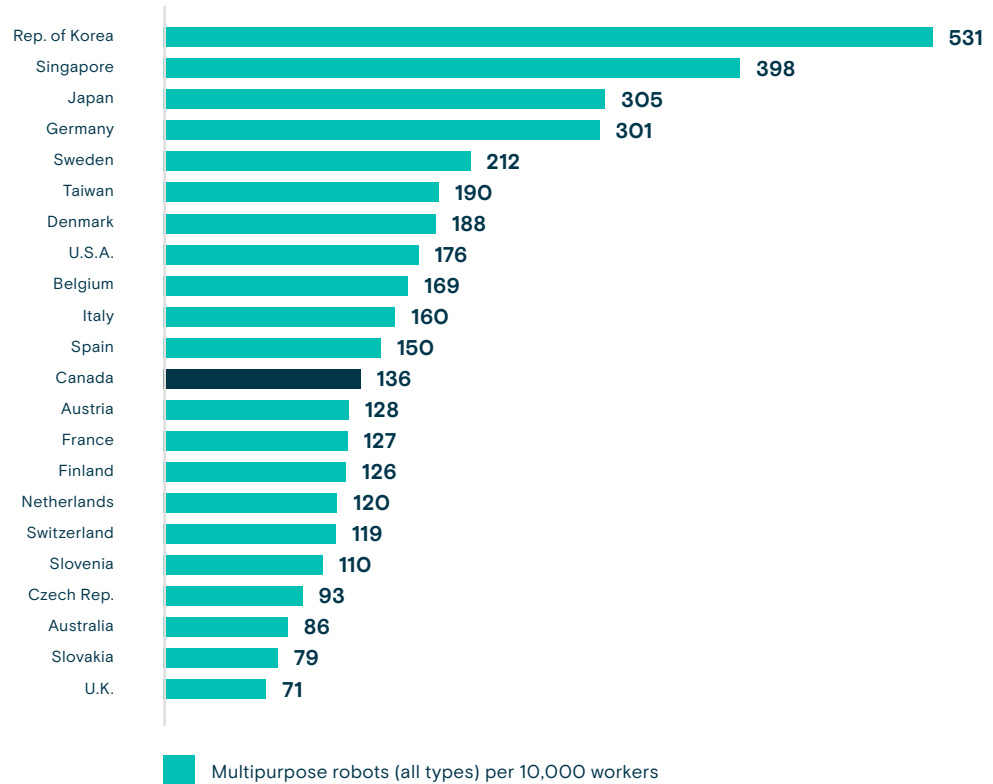
Source: World Robotics, 2016.

¹⁴ Recent advances have made robots easier to program, more flexible, more precise, faster and safer to work near. The emergence of inexpensive collaborative robots that can be installed directly on the production line—without the need for caging—lowers costs and frees up valuable floor space.

¹⁵ This is due to the rising cost of freight and labour in low-cost jurisdictions such as China. For example, the average cost of labour per hour in China is more than seven times higher in 2017 than it was in 2001. An hour of work costs an estimated US\$4.60 on average in 2017, compared to US\$0.60 in 2001. Source: The Economist Intelligence Unit.

Figure 9 – Canada lags behind other advanced economies on automation

Density of robots in the manufacturing industry by country, 2015



Source: International Federation of Robotics.

However, automation is not only about robots. Many digital technologies, such as customer relationship management (CRM) and enterprise resource planning (ERP) systems, help boost productivity and reduce costs by automating repetitive functions in such areas as accounting, supply chain management, human resources and customer service.¹⁶ For example, a company can set up automatic emails to confirm with customers that they have placed an order, update them on its progress and notify them when it has been shipped.

Meanwhile, AI promises to improve productivity through the automation of cognitive tasks such as driving, analyzing text, and collecting and processing data. According to the McKinsey Global Institute, half of today's work activities could be automated by 2055. This could happen even sooner—as early as 2035—if the cost of technology, labour market dynamics, and social and regulatory acceptance were to allow it.¹⁷

¹⁶ BDC, *How to use technology to improve your profits*, <https://www.bdc.ca/en/articles-tools/technology/invest-technology/pages/business-software-improve-your-profitability.aspx>

¹⁷ McKinsey Global Institute, *A future that works: Automation, employment, and productivity*, January 2017.

What it means for your business

To stay competitive, Canadian entrepreneurs have to embrace automation. These technologies boost productivity and reduce costs. But, more fundamentally, they help you maintain a flexible business by reducing time to market and increasing your responsiveness to customer needs—key factors in boosting your company's competitiveness.

What your business can do

Nearly all business processes can be automated, but this doesn't mean you need to invest massively in automation technology. Instead, identify areas in which automation can bring the most value to your business. We recommend the following strategies.

- **Map out your business processes.** From issuing client quotes to receiving payments, business process mapping can provide you with insights into what functions require the most effort and take the longest time to complete. These functions should be the first candidates for automation. This analysis, in turn, will lead you to the technology solutions that provide the most value for your business.
- **Involve your employees.** It's important to get your employees involved in the selection of new technology systems. They have intimate knowledge of your business processes and are invaluable resources when selecting and implementing systems. And, if they are left out, they may resist using the new technology, regardless of how beneficial it might be. Share your vision with them of why automation is important, including how it will enhance the value you deliver to your customers. Learn about their needs and fears, and offer appropriate training to help them make the transition to working with new systems.
- **Shop around.** Before you invest in new systems, carefully assess what's available to find those best suited to your company. Each product and vendor has its own strengths and weaknesses. When considering automation solutions, take into account your expected growth, the viability of the vendor, the stability and functionality of the product, and the availability of third-party add-on solutions. Other key considerations include the total cost of ownership and your expected return on investment. Many entrepreneurs are attracted to customized systems, but off-the-shelf products will often do the job at a much lower cost and with fewer headaches down the road.
- **Consider getting outside help.** When selecting technology systems to implement in your business, it's wise to understand your limitations. As with any major investment, the adoption of new technology can hurt your company badly if it goes wrong. That's why choosing the right solution is often best managed with the help of an independent third-party consultant.



Lenmak Exterior Innovations

Automation helps Alberta manufacturer ride out economic downturn

For some CEOs, a hot sports car is the ultimate toy. For Ray Turner, his favourite toy is a new piece of high-tech equipment or software for his company's factory.

"That's my Porsche," says Turner, President of Lenmak Exterior Innovations, an Edmonton manufacturer of architectural panels, cladding and roofing with 38 employees. "You won't believe how technology can help you to step up your game."

Turner admits that the downturn in the Alberta economy hit his company hard, forcing layoffs. But it would have been much worse if Turner hadn't automated production, investing in sophisticated computer numerical control (CNC) machines, robots and other high-tech gear to move, cut and bend metal. The investments have helped the company ride out the economic storm and positioned it for renewed growth.

One of Turner's most important projects has been to automate product pricing. Customers can now use a fillable template to upload a list of components from a building design directly to Lenmak's website and receive a fully priced quote. The system allows customers to try various products to see what the impact is on overall pricing.

Once the order is confirmed, Lenmak's ERP system automatically converts the information—dimensions, colours and other features—into files that guide CNC machines.

Operators scan bar codes on the order as it moves through the plant so that anyone with access to the ERP system can find out where the order is and when it will be completed. This allows the company to better plan production and to keep customers informed about their order's progress.

Lenmak is preparing to begin exporting to the U.S., and Turner says he's confident the technology investments are going to pay off in higher sales.

"We have industry-leading technology and equipment to handle the volume. So, when the momentum builds, hold on to your seat."

Read the full story to learn more about how Lenmak Exterior Innovations future-proofed its business at www.bdc.ca/lenmak.

2.3 The rise of the data economy

Many businesses now have access to a vast amount of data on their day-to-day operations from such sources as their website, loyalty card program and CRM system. For example, loyalty card programs allow retailers to know what their customers are buying and when. This information helps businesses anticipate customer needs and offer special discounts on products customers are likely to buy. In manufacturing, many businesses analyze production data to understand the factors influencing output, so they can improve their processes. However, data collection is not always an easy task. Many companies still collect data by hand, making analysis burdensome and error-prone.

New digital technologies offer a solution. Cloud-based software and the Internet of Things—wireless sensors connected to machinery, equipment, vehicles and buildings—can help companies automate data collection from every part of their business. For example, a beer company might use sensors to monitor and control brewing temperature to prevent excessive heat from ruining batches. Or, a supplier of industrial protection gear, such as gloves and earplugs, could use “smart” vending machines in customer locations to alert it when supplies are running low and the machines need to be refilled.

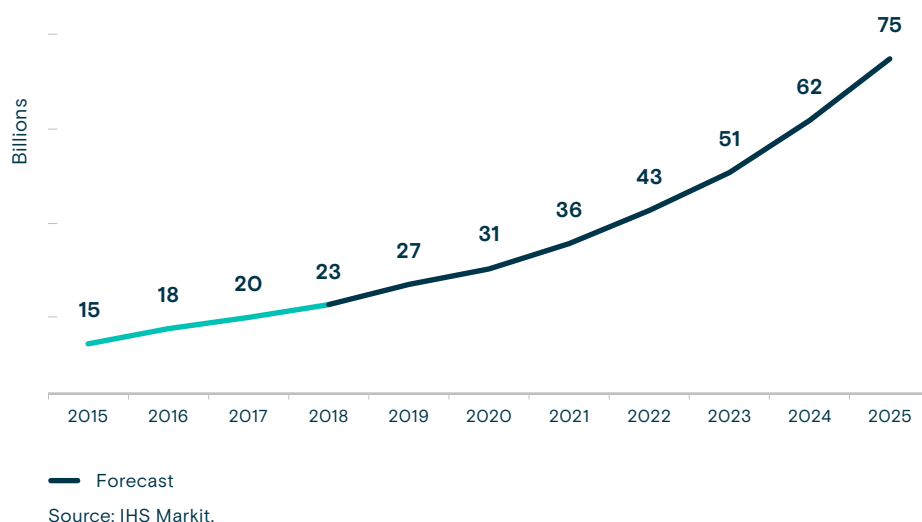
75

billion devices should be connected to the Internet by 2025

According to IHS Markit, a provider of business information and analysis, the number of devices connected to the Internet should reach 75 billion by 2025, a nearly fourfold increase from 2017 (Figure 10). Companies now have both access to reams of data and the ability to crunch it to uncover valuable business insights. This trend has led *The Economist* to proclaim the world's most valuable resource to be data, not oil.¹⁸

Figure 10 – The number of devices connected to the Internet is exploding

Number of devices connected to the Internet, worldwide forecast



¹⁸ *The Economist*, "The data economy: Fuel of the future," May 6, 2017.

What it means for your business

Businesses that use data to optimize their operations and exceed customer expectations are more competitive. However, you must not only gather data but also analyze it to generate valuable insights. Businesses can also use mobile communications and the Internet of Things to redefine their business model. For example, a company that sells machinery can shift to a “product-as-a-service” model, charging based on usage, rather than simply making one-time sales.

What your business can do

The type of data companies can collect, and what they can do with it, differs greatly according to business size and sector of activity. Of course, it's often too expensive and complex for small businesses to perform advanced data analytics. Nevertheless, it's important to understand the value of data and to get comfortable with using it to help manage your business. We recommend the following strategies to leverage the power of data in your company.

→ **Use data tools.** Small businesses can understand customers better and capitalize on sales opportunities by using such tools as online surveys, social media listening software and free or low-cost tools, such as Google Analytics, that allow you to analyze website data to see where visitors come from and how much time they spend on your site. These tools help you gather feedback from existing and potential customers, understand the impact of your online campaigns, track buzz on social networks and gain insights into your web traffic and search engine optimization performance.

→ **Get a CRM system.** A CRM system allows you to centralize all customer information, provide more personalized customer service and follow up with sales prospects. Benefits include an improved ability to anticipate clients' needs, targeted reach, and increased sales through better client relationships.

Small businesses may want to get started with a free or low-cost application. Consider getting help from a third-party consultant to help you make your system selection.

→ **Personalize your offerings.** Data collected from your website, CRM system or even online surveys can help you personalize your products and services according to your customers' needs and tastes. Personalized offerings show your customers you know and appreciate them. What's more, customers will generally pay more for a product that is personalized.

→ **Improve your efficiency with dashboards.** By measuring your performance in key areas, you can evaluate how you are doing compared to internal goals or external benchmarks such as industry averages. Then, you can get started on improving your results. A good way to introduce a measurement system to your business is to select key performance indicators and then use them to create performance dashboards.



Baseline
telematics



Baseline Telematics

Tech company uses real-time data to lower insurance costs

It was way back in the 1990s when Paul-André Savoie had his first taste of how powerful mobile technology could be for the automobile insurance industry.

Savoie owned a company called Boomerang that used rudimentary cellphone technology to help insurers track down stolen cars. Boomerang was a huge hit with insurers, but Savoie could see it was only the beginning.

He watched as the price of GPS receivers and mobile telecom services fell steadily through the 2000s. By 2010, he was ready to strike. He launched a new company called Baseline Telematics to allow both insurance companies and policyholders to benefit from the collection of real-time data on driving habits.

Fast-forward to 2017, and Baseline's products are used in a dozen countries by 20 insurance companies, including some of the largest players in the world.

Analyzes real-time data from vehicles

Vehicle-tracking technology, known as telematics, allows insurers to offer customers usage-based insurance.

By analyzing real-time data transmitted from vehicles, insurance companies can offer discounts (or other rewards) for actual safe driving behaviours.

Savoie says good drivers can earn as much as a 50% discount on their monthly car insurance premium for safe driving. For insurers, usage-based insurance typically produces a 20% to 28% improvement in their loss ratio (losses divided by premiums), he says. This occurs for two reasons. First, good drivers sign up for the policies to earn discounts. Second, bad drivers improve their behaviour.

"Money motivates behaviour, and that's typically what we see happening," says Savoie, whose Laval, Quebec-based company employs 35.

Baseline's system allows insurers to monitor driving behaviour through a mobile phone app. For more precise readings, a small device containing a GPS receiver, an accelerometer and other gear is plugged into the car.

Baseline now also uses its technology to allow life and health insurers to monitor lifestyle behaviours through smartphones and wearables. The data makes it possible for insurers to reward good health and lifestyle choices. The company is also exploring how insurers can use real-time data to improve their home insurance products.

Learn more about other Canadian entrepreneurs who future-proofed their business at www.bdc.ca/trends.



Flytographer

How Flytographer's booking platform creates business growth

A bad selfie experience on a Paris vacation led Nicole Smith to create Flytographer, a company that connects vacationers with professional photographers around the world.

"I wanted to remember this moment," said Smith of her Paris vacation with a best friend. "We took these selfies and it was just our big floating heads with barely any background."

The next day, they met up with a friend in Paris and asked her to take a few candid shots of them walking the streets. "When I saw the pictures, I had goosebumps because she'd captured the spirit of our trip."

With that inspiration, Smith started Flytographer in 2013 as a part-time project while she continued to work full-time in marketing for Microsoft. Today, Flytographer has 16 employees and a network of 400 "carefully vetted" photographers in 200 cities. It's been featured in *The New York Times*, *The Guardian* and *InStyle* among other publications.

To handle the growth, the company launched a custom booking platform that improves customer experience and automates many functions. Customers now log into a dashboard where they can choose a photographer, manage their booking and access their Flytographer shoots from past vacations.

Use insights from data

Data produced from this digital platform is big benefit for Smith when it comes to identifying and fulfilling unmet customer needs.

"We've mapped the customer journey from end to end to look at every touch point and try to understand how we can remove friction and inject delight."

To improve and create new products, Flytographer constantly studies data generated by its website, online marketing efforts and booking platform.

"We take the data, analyze it and run a lot of tests," Smith says. "We want to see what moves the needle. What do we want to amplify? What do we want to kill?"

It's proven to be a winning formula and has Smith targeting a \$100 million company in 10 years.

Learn more about how Flytographer adapted its business to the data economy at www.bdc.ca/flytographer.

Conclusion

Canada's changing workforce and the adoption of new digital technologies are having a profound impact on businesses across the country. And, the effects of these two interconnected forces will only accelerate in coming years. As a result, demands on entrepreneurs are growing as the business environment becomes more complex and competition heats up.

But, these transformations present more than just challenges. They offer remarkable opportunities for entrepreneurs with the vision and ambition to seize them. Our survey clearly shows that businesses that embrace the changes are more successful than those that don't. The more successful companies report improved customer experience, higher revenue growth, increased productivity and reduced costs.

The business owners you have met in this report have succeeded in future-proofing their businesses, and you can do it, too. By investing to gear up now, you can capitalize on these forces and build a stronger, faster growing and more profitable business.

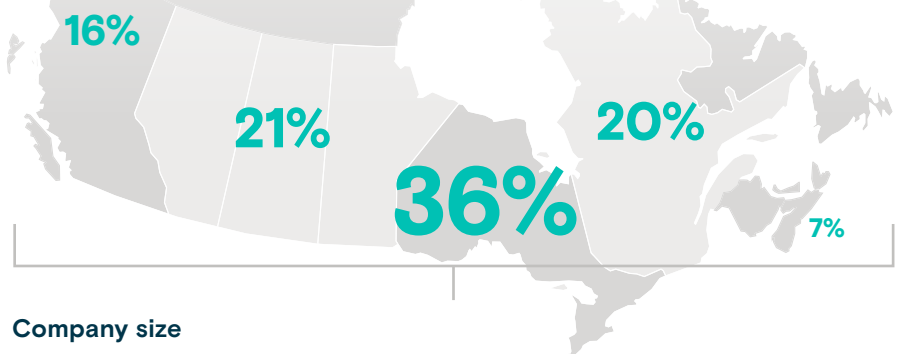
Survey methodology

BDC conducted an online survey from June 20 to July 2, 2017, with 1,413 business leaders across Canada. An email invitation to complete the survey was sent to members of the BDC ViewPoints Panel as well as to a group of panellists recruited by the Maru/Matchbox organization.

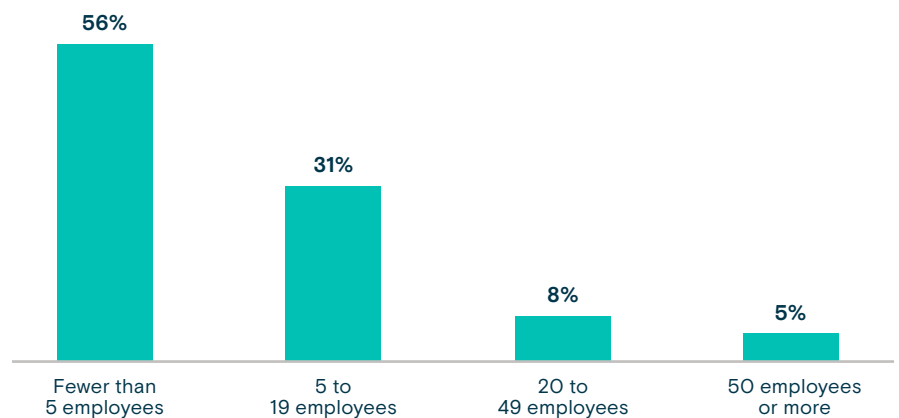
The results of the survey were weighted by region and company size. For comparison purposes only, a probability sample of this size would carry a margin of error of ± 2.6 percentage points.

Figure 11 – Profile of respondents

% of respondents by region



Company size



Source: BDC survey, *Demographic change and the shift to new technologies in small and mid-sized Canadian businesses*, July 17. Base: all respondents (n=1,413).

Do you want to know more on issues impacting small and mid-sized businesses in Canada?

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